

# COMPONENTS

## FAQ

**Q** Why should I replace the standard Intel or AMD processor cooler?

**A** Although the standard cooler does a perfectly good job, it isn't the quietest one available. If you want to make your PC quieter, there are plenty of alternatives to choose from, with prices ranging from around £10 to £40.

Copper is the best conductor, so is more efficient at removing heat from the processor than aluminium, and can sometimes do without a fan at all. However, copper is expensive, and a better choice for most people is an aluminium/copper combination with a quiet fan.

Most modern motherboards automatically adjust fan speed according to temperature, so as long as your cooler is efficient, your fan will run more slowly, keeping noise down.

**Jim Martin**

Reviews Editor



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## SHUTTLE XPC Glamour SN68PTG6 Deluxe

★★★★★

£227 inc VAT

From [www.komplett.co.uk](http://www.komplett.co.uk)

Shuttle's latest barebones PC is unusual. First, it has a fingerprint reader integrated into the flip-down door at the base of the front panel. Next to this is a Speed-Link button, which allows you to use one of the two front USB2 ports to connect another PC directly instead of using a network cable. Why a PC that's aimed at media centre use needs these two features is unclear.

The PCI Express x16 graphics card slot will let you add a more powerful card than the integrated Nvidia GeForce 7050PV, but the 300W power supply doesn't have a PCI Express power connector. Then there are the two eSATA ports at the rear for connecting external hard disks (configured in a RAID if you so desire), but this somewhat defeats the point of buying a small form factor PC. Also, there are no legacy ports, so you'll need a USB keyboard and mouse.

However, the SN68PTG6 does offer a lot for your money. Aside from the fingerprint reader, there's integrated Bluetooth 2.0, 802.11g wireless networking, eight-channel audio with S/PDIF out, Gigabit Ethernet

and an HDMI output. This is a real advantage if you plan to use the PC as a media centre, but the GeForce 7050PV's gaming prowess is lacking. In Call of Duty 2 it managed only 2.2 frames per second (fps), but when we installed – or rather, shoehorned in – our reference ATI Radeon X1950 Pro, this jumped to 36.4fps.

It's worth noting that only a single-slot graphics card with a low-profile heatsink will fit; our card's Zalman cooler stuck out of the side and prevented us putting the case lid back on. We also installed 2GB of DDR2 RAM and an AMD Athlon 64 X2 4200+ processor, and these led to



the sort of performance we would expect in our Windows benchmarks.

Behind the front panel, there's room for a hard disk, a DVD writer (which sits behind the top flap) and a second 3½in drive, such as a second hard disk, a media card reader or floppy drive. The motherboard has two SATA channels and an EIDE connector, so you can't install two SATA hard disks and a SATA optical drive.

Thanks to the system's extremely quiet running, plus the wireless networking and HDCP-compliant HDMI output, it's best suited to media centre use. It's also worth noting that the integrated sound card supports Dolby Digital Live! and DTS Connect. The XPC can also decode high-definition video, as long as you

install at least an Athlon 64 X2 4200+. Videos in 720p H.264 played smoothly, but a 1080p Blu-ray movie was a little jerky using the on-board graphics.

One minor complaint is that build quality isn't quite up to the level we've come to expect from Shuttle. The power button kept sticking, and we had to remove the cover to push it out each time. If you want to build a media centre PC, though, the SN68PTG6 is a good choice. It may have some unnecessary frills, but it's still good value.

Jim Martin

### SUMMARY

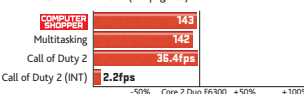
✓ Ideal for use as a media centre

✓ Quiet

✗ Average build quality

**BAREBONES PC** Nvidia 630 chipset, supports AMD Socket AM2 processors, 6x USB2, 2x FireWire, 2x eSATA and Gigabit Ethernet ports, HDMI and D-sub outputs, 2x 3½in bays, 1x 5¼in bay, Nvidia GeForce 7050PV graphics, 300W power supply  
**PART CODE** SN68PTG6  
**DETAILS** [www.shuttle.eu](http://www.shuttle.eu)

### PERFORMANCE (see page 66)



## Also consider...

### INTEL Core 2 Duo E6750

★★★★★

£114 inc VAT

From [www.redstore.com](http://www.redstore.com)

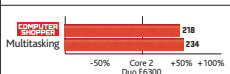


**Intel's latest Core 2 Duo processor** has a faster FSB speed of 1,333MHz, so there's more bandwidth available to talk to system components, although you need a motherboard that supports this speed. It's incredibly quick, but also great value.

If you're looking to build a new PC and want a lightning-fast processor, this is the one to buy.



**PROCESSOR** Two cores running at 2.66GHz, LGA775, 333MHz external bus (1,333MHz quad-pumped FSB), 4MB L2 cache  
**PART CODE** BX80557E6750  
**DETAILS** [www.intel.com](http://www.intel.com)  
**FULL REVIEW** Oct 2007



### SAPPHIRE X1950 Pro

★★★★★

£90 inc VAT

From [www.it247.com](http://www.it247.com)

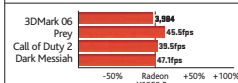


**The X1950 Pro is an excellent card.** It blasted through

all our games tests at high detail and resolution settings. It doesn't support DirectX 10, but there probably won't be many games that require this over the next year. This graphics card is also available as an AGP version for about the same price. For those on a budget, this is the card to buy.



**GRAPHICS CARD** ATI Radeon X1950 Pro chipset, PCI-E x16 interface, 570MHz core speed, 36 pixel pipelines, 256MB GDDR3 memory running at 700MHz (1.4GHz effective)  
**PART CODE** 11095-01-20R  
**DETAILS** [www.sapphiretech.com](http://www.sapphiretech.com)  
**FULL REVIEW** Oct 2007



## COOLER MASTER Hyper TX 2

★★★★★

£10 inc VAT  
From [www.yoyotech.co.uk](http://www.yoyotech.co.uk)



Cooler Master is positioning its Hyper TX 2 against Arctic Cooling's excellent Freezer Pro models. The TX 2 is a shade cheaper, but works with both AMD and Intel LGA775 processors. It comes with Intel push-in connectors attached, but it's simple to unscrew these and attach AMD clips instead.

The TX 2 is a similar size to the Freezer Pro models, standing 92mm high, and should fit in most cases. Three heatpipes dissipate heat to the cooling fins, while a 92mm fan cools the fins.

Although the fan has a three- rather than four-pin power connector, giving the motherboard less control over fan speed, the TX 2 is very quiet at its maximum of 22dBA. At full speed we could hear only a faint hum when next to the fan. Inside a closed case, it'll make for a very quiet PC.

Intel's stock cooler kept our Core 2 Duo E6300 at 41°C when idle and 45°C under load; with the TX 2 it ran at 28°C and 35°C.

Thanks to a very low price, compatibility with AMD and Intel processors and effective cooling, the Hyper TX 2 is excellent value, a great upgrade from stock coolers and just as good as the Freezer Pro.



David Ludlow

### SUMMARY

- ✓ Effective cooling
- ✓ Quiet
- ✗ Three-pin power connector

**PROCESSOR COOLER** Supports Intel LGA775, AMD Socket AM2 + 939 processors, 92mm fan, 1,700-2,000rpm spin speed, 22dBA max operating volume  
**PART CODE** RR-CCH-L9U1-GP  
**DETAILS** [www.coolermaster.co.uk](http://www.coolermaster.co.uk)

## GIGABYTE iSOLO 210

★★★★

£56 inc VAT  
From [www.eclipsecomputers.com](http://www.eclipsecomputers.com)



The iSOLO 210 is a mid-size ATX case with space for five 5¼in drives and five 3½in drives. Two of the latter are on the front panel, and the other three are inside. All bays have quick-release catches, so you don't need tools to install hard disks, media card readers or optical drives. The rear expansion slots are also tool-less, which makes it easy to install and swap out cards.

There are two 120mm fans: one at the front, cooling the hard disks, and one at the rear. A neat touch is that the fans require only a single power header on the motherboard, as they're joined together. The left side panel has a large metal mesh to allow cool air to enter, and the whole front panel is made of mesh, too. Sensibly, this is backed by foam to prevent dust being sucked in.

No power supply is included, but there are two pre-drilled holes for water-cooling pipes. On the front, you'll find two USB2 ports, a six-pin FireWire port and audio in and out jacks.

It's slightly disappointing that there are no anti-vibration mountings for the hard disks and no dampening on the insides of the steel side panels. If you already have a power supply, the iSOLO is a good choice, but those without should either opt for the version with one included, or look elsewhere.

Jim Martin

### SUMMARY

- ✓ Tool-less design
- ✓ Plenty of room inside
- ✗ No hard disk cooling; expensive

**ATX CASE** 5x 5¼in bays, 5x 3½in bays (2x external and 3x internal), 2 x USB 2, FireWire, audio in, audio out  
**PART CODE** GZ-AA1CB-SNS  
**DETAILS** <http://uk.giga-byte.com>

## CHOOSING A... Barebones System

Follow the steps to find your ideal specs

**PROCESSOR SUPPORT:** AMD Socket AM2

**HARD DISK SUPPORT:** 2 SATA

**EXPANSION SLOTS:** 2 PCI

**GRAPHICS:** Onboard

**EXTRAS:** Memory card reader

Recommended minimum in grey

**1** Buying a barebones system is a simple way of building your own computer, as you get a case with the motherboard already installed, plus all of the cables and instructions are designed specifically for your PC. All you need to do is add your own drives, processor, memory and, potentially, graphics card. A barebones system that supports the latest AMD Socket AM2 processors and has space for up to two hard disks and an optical drive will cost around £130.

**2** As the motherboard is built in, you need to decide on the processor you want to buy before you choose your barebones case. If you want Intel support, you'll need an LGA775 socket. Check for Core 2 Duo support on the manufacturer's website if you want to use Intel's latest processors. For AMD systems, Socket 939 will support the older range of processors, which are good value now but harder to upgrade from; Socket AM2 will support all AMD's new processors.

**3** If you just want a basic computer for office tasks, onboard graphics will save you money. If you want the option to upgrade to a dedicated graphics card to play games, look for a system that comes with a PCI-E x16 slot.

**4** If you want to be able to install a wireless card, TV card or other expansion card, you'll need a system with free expansion slots. For now, make sure you get at least one PCI slot; PCI-E x1 slots aren't as well supported and you'll have more trouble buying a card to fit them.

**5** How are you going to use your PC? If it's a second PC, a standard tower barebones will do the job. If space is at a premium, a mini PC is a more sensible option. If you're building for the living room, a barebones with hi-fi styling makes more sense. Whatever your choice, make sure there's enough room to fit all the hard disks, optical drives and expansion cards you want.

## EVGA 8800GTS ACS3

★★★★★

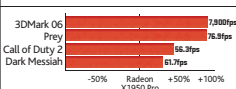
£200 inc VAT  
From [www.shop.bt.com](http://www.shop.bt.com)



EVGA's 8800GTS ACS3 is a stunning graphics card that will power through old and modern games at high detail settings.

The 8800GTS ACS3 is overclocked, so it's nearly as fast as the £400 8800GTX. We appreciate that £200 isn't cheap, but if you don't want to pay as much as £400, the 8800GTS ACS3 is the graphics card for you.

**GRAPHICS CARD** Nvidia GeForce 8800GTS chipset, 590MHz core speed, 320MB DDR3 memory running at 920MHz (1.84MHz effective), 96 stream processors running at 1.45GHz, PCI-E x16 interface  
**PART CODE** 320-P2-E817-AR  
**DETAILS** [www.evga.com](http://www.evga.com)  
**FULL REVIEW** Oct 2007



## AOPEN MP965-DR

★★★★★

£302 inc VAT  
From [www.lambda-tek.com/componentshop](http://www.lambda-tek.com/componentshop)

Aopen's latest mini-PC is around the same size as a Mac mini but is even more stylish. It's a barebones case, but comes with a slimline DVD writer so you only need to add a laptop-style processor, RAM and hard disk. You get a Media Center remote control in the box and there's a DVI-to-HDMI adaptor so you can connect the PC to a high-definition TV.



**BAREBONES PC** Intel 965GM chipset, supports Socket P processors, 4x USB2, FireWire and Gigabit Ethernet ports, DVI and TV outputs, Intel GMA 3100 graphics.  
**DETAILS** [www.aopen.nl](http://www.aopen.nl)  
**FULL REVIEW** Dec 2007

